



RECREATIONAL USE ATTAINABILITY ANALYSES
PUBLIC COMMENTS

Public Comment Period
May 21, 2008 – August 31, 2008

Little Flat Creek
Unclassified segment upstream of WBID #2393

Unclassified
Barry County

Missouri Department of Natural Resources
Water Protection Program
PO Box 176
Jefferson City, MO 65102-0176
800-361-4827 / 573-751-1300

Recreational Use of Your Stream

Name: Mr. Ray Dotson & Patricia Dotson
Address: RRte 3 Box 257 MOKETT MO 65708 (EASYSVILLE ON HWY 88)
Phone Number: (417) 442-3839 E-mail address: Ø
Stream name: Little Flat Creek WBID (if known): 2393

What county is the stream in? BARRY
2394
2391
2387

Have you or your family used this stream for recreation at any time since November 28, 1975?

Yes ☒ No ☐

How have you and your family used the stream? Please circle all that apply:

☒ Swimming ☒ Playing ☒ Fishing ☒ Wading ☐ Water skiing ☒ Snorkeling ☐ Skin diving
☒ Tubing ☐ Kayaking ☒ Canoeing ☐ Trapping ☐ Other: _____

Has anyone in your family, including children, ever used the stream in a way where they might have accidentally ingested water? Yes ☒ No ☐ If so, how? We have an older shallow well for our household use. When the stream is down our water pressure is down as well.

What stretches of the stream have your family used? Describe locations as accurately as you can by means of distance from landmarks, bridges, streets, highways, or property lines (example: 150 yards downstream from Hwy EE bridge). Feel free to draw (on back) or include a map.

East upstream to NF1100 at the deep spot near Macedonia Church and downstream past Henderson's corner at the little bridge. All the way down to NF1135 at Hutchens drive way & Sonny Lamp's bridge on 1135.

Do you know of others using this stream for recreation at any time since November 28, 1975?

Yes ☒ No ☐

map
appended

How have others, to your knowledge, used the stream? Please circle all that apply:

☒ Swimming ☒ Playing ☒ Fishing ☒ Wading ☐ Water skiing ☒ Snorkeling ☐ Skin diving
☒ Tubing ☐ Kayaking ☒ Canoeing ☐ Trapping ☐ Other: _____

Do you know of others ever using the stream in a way where they might have accidentally ingested water? Yes ☒ No ☐ If so, how? Playing in the water and enjoying a nice summer day with the cousins / water fights

What stretches of the stream did they use? Describe locations as accurately as you can by means of distance from landmarks, bridges, streets, highways, or property lines (example: 150 yards downstream from Hwy EE bridge). Feel free to draw (on back) or include a map.

From 88 Bridge down to McDowell to Little Flat - to Big Flat also - Easyville Church

Signature Mrs. Patricia Dotson Date 8/23/08

Mail to: John Hoke, UAA Coordinator, Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102, or Fax: 573-522-9920, or Email: john.hoke@dnr.mo.gov

Please use the back if you need more space to answer questions or to provide additional information or maps.



Stream Usage Survey

1. Stream Name (Please enter the full name) Little Flat Creek
2. County (Please enter the county or counties where the use occurs) Barry
3. City or Town (Please enter city or town closest to the area of use) Pindy
4. Where do you use the stream? If use occurs in multiple locations, please list them all below. (Please be specific so the location can be identified on a map, e.g., 9th Street Bridge, Anytown City Park, Quarter Section-Township-Range; Latitude/Longitude, etc).

East of Hwy 88, upstream to the Macedonia church swimming hole at NF 1100
downstream past state Hwy 88 bridge to the bridge at Sunny Lamp's house on
NF 1135

5. Have you or your family personally used the stream at this site(s) for recreation since Nov. 28, 1975?

☒ Yes If Yes, go to Question #6 ☐ No If No, go to Question #11

6. Have you or your family personally used the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☒ Snorkling/Skin Diving ☐ Water Skiing

7. How many times per year have you or your family personally used the stream for these activities?

more than 5

8. Have you or your family personally used the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☐ Boating ☐ Trapping

9. How many times per year have you or your family personally used the stream for these activities?

more than 5

10. How many of these times did children wade or play in the stream?

all of above / more than 5

11. Have you observed or heard of others using the stream at this site(s) for recreation since Nov. 28, 1975?

☒ Yes If Yes, go to Question #12 ☐ No If No, go to Question #17

12. Have you observed or heard of others using the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☒ Snorkling/Skin Diving ☐ Water Skiing

13. How many times per year have you observed or heard of others using the stream for these activities?

more than 5

14. Have you observed or heard of others using the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☐ Boating ☒ Trapping

15. How many times per year have you observed or heard of others using the stream for these activities?

more than 5

16. How many of these times did you observe or hear of children wading or playing in the stream?

all of above / more than 5

17. Do you have additional comments you would like to provide the department regarding this stream?

The water from Little Flat Creek has come up into our fields at Easyville many times this year. I have had water into my husband's bedroom through the back door. Water under the Easyville church and into my son's fields. My two

18. In the event the department has questions, please provide the following contact information:

Grandkids were canoeing over the fields and vehicles parked in the field were flooded 4' under to the windshields. There are logs into the osage orange trees in the creek that are of great size - they were floated there and will be cut up for fire wood.

First Name: Patricia Last Name: Dotson
Address 1: RR# 3 Box 257 Address 2: _____
City: Monett State: Missouri Zip Code: 65708
Phone Number: (417) 442 - 7910 ext. _____ E-mail: Q

Thank you for taking time to complete our stream use survey. We appreciate your interest and involvement in protecting and preserving the quality of Missouri's waters. If you have questions or additional comments, please contact John Hoke, UAA Coordinator, at 1-800-361-4827 or (573) 526-1446, by e-mail at cleanwater@dnr.mo.gov, or by mail at P.O. Box 176, Jefferson City, Missouri 65102-0176.

Cancel

Submit



Missouri Department of Natural Resources
P.O. Box 176, Jefferson City, MO 65102

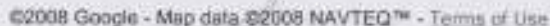
1-800-361-4827 / (573) 751-1300
E-mail: cleanwater@dnr.mo.gov

Danny Dotson's place on little Flat Creek at Earlyville
and State Hwy 88 - Earlyville, MO



downstream from bridge at State Hwy 88
and Earlyville
← our kids swim here
notice the tree growing





WBID-2393

my family's usage area - MR. & MRS. Ray Dotson -
for swimming, wading
and household water use from shallow wells

Recreational Use of Your Stream

Name: Ruby L. Wilks

Address: 501 Edina, Rt 1, Box 369 Purdy Mo., 65734

Phone Number: (417) 442-9149 E-mail address: NONE

Stream name: Little Flat Creek WBID (if known): 2393-2394-2391
2387

What county is the stream in? Barry

Have you or your family used this stream for recreation at any time since November 28, 1975?
Yes ☒ No ☐

How have you and your family used the stream? Please circle all that apply:

☒ Swimming ☒ Playing ☐ Fishing ☒ Wading ☐ Water skiing ☐ Snorkeling ☐ Skin diving
☒ Tubing ☐ Kayaking ☐ Canoeing ☒ Trapping Other: I played in this stream since I was 7 yrs. old. (73 yrs) My children played there - My Mother & her brothers & 12 kids (generational farm) where pure wastewater system is located.

Has anyone in your family, including children, ever used the stream in a way where they might have accidentally ingested water? Yes ☒ No ☐ If so, how? We had two wells - 1 at house, one at creek, where we piped water to house. Creek is Spring Fed - all of Little Flat Creek is Spring Fed. The Churches baptised in Creek.

What stretches of the stream have your family used? Describe locations as accurately as you can by means of distance from landmarks, bridges, streets, highways, or property lines (example: 150 yards downstream from Hwy EE bridge). Feel free to draw (on back) or include a map.

All of the creek from C Hwy down to McDowell + Big Flat. My Dad's family all were raised on Big Flat Creek with 10 Bro + Sisters - So was in Mom - 12 Bro + Sisters. All of the area DNR wants to exempt. A big swimming hole (creek) do past Quarry (water still running there - Everyone swam there - baptisms were there since 1975)

Do you know of others using this stream for recreation at any time since November 28, 1975? Yes ☒ No ☐ Public swimming hole; Baptisms were there; There was a baptism at Bill Roller Lodge Creek in August of this year.

How have others, to your knowledge, used the stream? Please circle all that apply:

☒ Swimming ☒ Playing ☐ Fishing ☒ Wading ☐ Water skiing ☒ Snorkeling ☐ Skin diving
☒ Tubing ☐ Kayaking ☐ Canoeing ☒ Trapping Other: Wells - home use Baptisms - rural Churches

Do you know of others ever using the stream in a way where they might have accidentally ingested water? Yes ☒ No ☐ If so, how? Baptisms, kids playing - diving, Playing, drinking water - where all people living along creek have well

Inner tubes & water fights.

What stretches of the stream did they use? Describe locations as accurately as you can by means of distance from landmarks, bridges, streets, highways, or property lines (example: 150 yards downstream from Hwy EE bridge). Feel free to draw (on back) or include a map.

From Hwy C Bridge 3/4 mi E of Purdy down creek Little Flat 2393, 2394, 2391, to McDowell 2387. The Low Water bridge at Flat Creek (2070) has been used by public for years (still is) always running stream - becomes impassable many times a year.

Signature Ruby L. Wilks Date 8/23/08

Mail to: John Hoke, UAA Coordinator, Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102, or Fax: 573-522-9920, or Email: john.hoke@dnr.mo.gov

Please use the back if you need more space to answer questions or to provide additional information or maps

On Back

I do not understand why DNR & Clean Water Commission would even entertain the idea of exempting any streams in the state of Mo or any State in the U.S.

The Clean Water Act requires MONR to review States Water standards at least once every 3 years.

Exempting these streams from Clean Water mandates would allow sewer Agencies and other facilities to release bacteria-laden water into these waterways without disinfecting the wastewater they discharge.

I'm not against farmers - I was raised on a farm. I love the farm. I'm not against business; however, I am against ~~Expos~~, treatment plants, & businesses who don't treat their waste & discharge into rivers, lakes, streams, oceans, and pollute & ruin the nations soil & water. These people could control their waste; but, why should they waste their money when DNR & EPA let them pollute for free?



Stream Usage Survey

1. Stream Name (Please enter the full name) Little Flat Creek
2. County (Please enter the county or counties where the use occurs) Barry Co. Mo
3. City or Town (Please enter city or town closest to the area of use) Purdy Mo
4. Where do you use the stream? If use occurs in multiple locations, please list them all below. (Please be specific so the location can be identified on a map, e.g., 9th Street Bridge, Anytown City Park, Quarter Section-Township-Range, Latitude/Longitude, etc).

- Starting at C Hwy bridge (3/4 mi E of Purdy) runs down through Clifton Farm - Chicken Cafe at Creek - on N through Ruby Wilkes 80 acre farm taken by city of Purdy for lagoon - WW Treatment on down L. Flat 2393, 2391, Full 2070 to McDowell to Big Flat Low Water Bridge + Big Flat Creek
5. Have you or your family personally used the stream at this site(s) for recreation since Nov. 28, 1975?
- ☒ Yes If Yes, go to Question #6 ☐ No If No, go to Question #11

6. Have you or your family personally used the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☒ Snorkeling/Skin Diving ☐ Water Skiing

- Diving, Baptisms - when Church activities; school and 4th grad I was baptised.
7. How many times per year have you or your family personally used the stream for these activities? more than 5

8. Have you or your family personally used the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☒ Boating ☒ Trapping

- Baptisms - Wells for drinking water canoes
9. How many times per year have you or your family personally used the stream for these activities? more than 5

10. How many of these times did children wade or play in the stream? more than 5

11. Have you observed or heard of others using the stream at this site(s) for recreation since Nov. 28, 1975?

☒ Yes If Yes, go to Question #12 ☐ No If No, go to Question #17

- All of the above
12. Have you observed or heard of others using the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☒ Snorkeling/Skin Diving ☐ Water Skiing

- All of above
13. How many times per year have you observed or heard of others using the stream for these activities? more than 5

14. Have you observed or heard of others using the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☒ Boating ☒ Trapping

- canoes
15. How many times per year have you observed or heard of others using the stream for these activities? more than 5

16. How many of these times did you observe or hear of children wading or playing in the stream? more than 5

17. Do you have additional comments you would like to provide the department regarding this stream?

Any time it rains 2-3-4-5-6-10-16" all this stretch described above floods. Impossible at C Hwy - Purdy all way down creek to McDowell Low Water Bridge at McDowell washes cars off bridge & down stream.

18. In the event the department has questions, please provide the following contact information:

Ruby Wilkes 417-9144; 501 Edina, Rt 1, Box 369 Purdy, Mo 65734

On Apr 24, 1975 it rained 16" (called it a 100 yr flood) water was from hillside to the house where my parents lived & owned farm (where Purdy Lagoon is located) It washed the Eastview Church off foundation - 500 feet Dutton house

First Name: | Ruby | Last Name: | Wilks |
Address 1: | 501 Edina, Rt 1, Box 369 | Address 2: |
City: | Purdy, Mo 65734 | State: | Missouri | Zip Code: | 65734 |
Phone Number: | (417) 442-9149 | E-mail: | |

Thank you for taking time to complete our stream use survey. We appreciate your interest and involvement in protecting and preserving the quality of Missouri's waters. If you have questions or additional comments, please contact John Hoke, UAA Coordinator, at 1-800-361-4827 or (573) 526-1446, by e-mail at cleanwater@dnr.mo.gov, or by mail at P.O. Box 176, Jefferson City, Missouri 65102-0176.

Cancel

Submit



Missouri Department of Natural Resources
P.O. Box 176, Jefferson City, MO 65102

1-800-361-4827 / (573) 751-1300
E-mail: cleanwater@dnr.mo.gov



WBID 2393



Monett

Pleasant Ridge

Purdy

East Purdy

BARRY

Star City

Butterfield

BUTTERFIELD STAGE LINE

Oak Ridge

OLD WIRE RD

VV

BB

37

BB

C

C

37

W

U

C

248

Dole

NT ST

ST CLAY

Kindy Wicks
Farm SE of Purdy 1 1/2 miles
now used as Purdy
Wastewater Treatment
Plant.

This 80 acre farm belonged to
my Mother; she got from her
father. The farm was over
100 years old when City took
farm.

The location was not suitable
The DNK agreed.

Sinkholes, Karst topography
2 bottom less wells on property

1. Paired tons of concrete,
gravel into each well
& there was no bottom

2. Indian Graves are on my
property - Civil War - Indian
"Trail of Tears"

3. Indian graves was found
recently by City Wastewater
Treatment men

4. Running raw sewage into
creek from Purdy Lagoon
Knocked large holes in E end;

still doing same

5. Pollution from lagoon; checker litter on fields; herbicides, pesticides, cattle, crops, interference with irrigation systems on land by Arnaud & farm equipment

6. Arnaud pays kickback to City officials

1. they turn on irrigation for his crops (corn especially) 24 a night & run so many hours when its best for his corn.

7. There's pollution from Arnaud's farming lagoon going into Creek

8. There's pollution from Dang Clifton's chicken Cops to the South of lagoon running pollution into Creek.

9. The Creek is also spring-fed

In 1992, the City of Purdy + DNR, took my family's (over 100 yr old farm passed down from my Mother's father) 80 acres of choice land for the Purdy Mo City's wastewater lagoon.

This property is located $1\frac{1}{2}$ mi from Purdy SE of town. The City took my farm by Eminent Domain. Took the entire 80 acres. We were in Court several days at Barry Co, Cassville, Mo & had a jury trial in Springfield, Mo where jury ruled in my favor.

The comparative price for my land should have been \$2,000 per acre. I got 70,000; should have been \$160,000 for land. The house, barn, etc is bought separate; must pay for moving etc.

The City asked me to donate the property. The City met none of the legal guidelines in the State Facility Plan for taking property by Eminent Domain. The Judge, Judge Perry, Newton Co, Neosho, Mo took a \$25,000 payoff - Had a heart attack & got kicked off his judgeship.

The Court harassed me, had me stalled, I had to have guards in

Court; cited me for contempt
 of Court (because Judge ruled in my
 favor - then recinded; let Pardy
 go to City Hall get proof to win case -
 which I proved Attorney made false
 documents & they admitted in Court
 along with City Clerk, who is presently
 City Clerk.)

For this I received 6 mos in jail
 + had to apologize to all TV area
 coverage from Spitz & Joplin View.
 They assigned me an Attorney + a Judge
 up North. This Judge ruled in my
 favor.

When the lagoon was completed;
 Greg Perkins, DNR Springfield -
 declared Lagoon "Non Workable -
 due to Sink holes, Harst topography
 Indian gravesites by lagoon;
 2 bottomless Wells - 1 at House site
 & other one on NE part of Creek;

The Lagoon did not function
 properly - ran over berm - couldn't
 correct this. So City, (with Perkins
 knowledge) knocked Large Holes
 in E end of lagoon - running raw
 sewage into creek & is still

This lagoon is where
 pollution to Little Flat is
 coming from.

doing so at Present time.

The City also had to keep on using West Lagoon, which they are still using today.

As soon as Lagoon was completed the City leased the 80 acres to a farmer, banker, business man - Glen Garrett - Rudy who lives outside City Limits.

His friend had - Glen Scott was on City Council.

The new Mayor Sara Celselshi proved Conflict of Interest with Garrett + Scott; therefore they leased the 80 acres to farm to Jim Ornaud - farmer S W of Monett.

Jim Ornaud pays \$3,000 per Year for lease. Ornaud is a big dairy farmer, beef cattle, crop farmer + leases thousands of acres of land around Monett area.

Jim put many loads of chicken litter on Lagoon land; he does no till farming; which he uses huge amounts of herbicides &

pesticides. Arnaud brings
60-75 head of cattle to lagoon
after harvesting corn, hay, etc
for cattle to eat.

The cattle drink out of lagoon

Arnaud is also subsidized by
Govt FSA - Cassville.

According to Facility Plan for
building lagoons issued by State,
that Me & City had to follow
to build lagoon properly & legally,
States:

1. After lagoon is completed, the grass
must be kept short
2. The land cannot be farmed until
after 20 yrs
3. No chicken litter
4. No pesticides, herbicides
5. No cattle on land
6. After 20 years are up & lagoon is
no longer used; then any crops,
or hay must be destroyed
for at least 2-3 cuttings
7. This must be done before the

doing so at Present time.

The City also had to keep on using West Lagoon, which they are still using today.

As soon as Lagoon was completed the City leased the 80 acres to a farmer, banker, business man - Glen Garrett - Purdy who lives outside City Limits.

His friend had - Glen Scott was on City Council.

The new Mayor Sara Celselski proved conflict of interest with Garrett & Scott; therefore they leased the 80 acres to farm to Jim Ornaud - farmer SW of Morett.

Jim Ornaud pays \$3,000 per year for lease. Ornaud is a big dairy farmer, beef cattle, crop farmer & leases thousands of acres of land around Morett area.

Jim put many loads of chicken litter on Lagoon land; he does no till farming; which he uses huge amounts of herbicides &

5

Hay or land can be used for
any cattle or dairy, or seed or
crops used for human consumption

8. Milk Companies are not allowed to
buy milk from farmers who do this.
The milk companies still buy his milk
9. Arnaud does all these things
10. He irrigates all corn & crops
with lagoon water at my farm
11. Arnaud harvest around
\$300,000.00 worth of crops each
year off lagoon land
which is all illegal
in every aspect

I have turned all this in to DNR
EPA & to many other agencies
ever since sewer was built.

No one is interested in law; the
danger in using crops for human
consumption.

All DNR does is ignore whole
situation. Treats me rude. Does

nothing

Labels Me A Troublemaker

The City & DNR tried to make me lose everything I had.

I was forced to represent myself in court or I would have lost everything

The City stalked me; humiliated me, tried to arrest me at council meetings, all with approval of DNR & EPA.

Now the City is in trouble with lagoon with no money to correct the problems

(Article about City Lagoon enclosure



Matt Blunt, Governor • Doyle Childers, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

June 24, 2008

LETTER OF WARNING

The Honorable Robert Moser, Mayor
City of Purdy
101 Front Street
P. O. Box 216
Purdy, MO 65734

Dear Mayor Moser:

Enclosed you will find an inspection report for the wastewater treatment facility serving the City of Purdy. I believe the report is self-explanatory and trust you will address any unsatisfactory features noted, as well as any recommendations contained therein.

The report notes the samples collected during the inspection and three months of Discharge Monitoring Reports indicate non-compliance with Missouri State Operating Permit (MSOP) daily maximum limitations for nitrate in monitoring well # 1. This non-compliance constitutes a violation of Missouri Clean Water Law sections 644.051.1(3) and 644.076.1 RSMo. Because of continued non-compliance with MSOP it will be necessary for the City of Purdy to retain the services of a professional engineer registered in the State of Missouri to evaluate the design, operation, and maintenance of the lagoon system and make recommendations to bring this facility into compliance with MSOP limitations and conditions. **This engineering report and a commitment by the City of Purdy to implement the recommendations must be submitted within 120 days of receipt of this letter.**

It was observed during the inspection a potential leak through the berm of the lagoon serving Outfall 002. A request was made to the Department of Natural Resources – Division of Geology and Land Survey to evaluate the lagoon, a copy of their report is enclosed. Their observations confirmed the leakage from the lagoon. It will be necessary for the City of Purdy to conduct an engineering evaluation of the lagoon system to determine if repair or replacement of the lagoon is needed. **This engineering report and a commitment by the City of Purdy to implement the recommendations must be submitted within 120 days of receipt of this letter.**

The City of Purdy has a bypass lagoon (Outfall 002) which can be used as a bypass of complete treatment for excess flow from storm events. The current Missouri State Operating Permit (MSOP) allows a discharge with limitations of 45 mg/l for both Biochemical Oxygen Demand and Total Suspended Solids. The Environmental Protection Agency (EPA) has recently commented that these discharges should not be allowed unless the permittee has exhausted all avenues to reduce or eliminate Inflow and Infiltration (I&I) into the collection system. It appears the EPA is heading in the direction of elimination of these outfalls from the City's MSOP. If a discharge does occur after the outfall is eliminated, it must be reported as a bypass in accordance with MSOP Standard Conditions Part I.

The Honorable Robert Moser, Mayor
June 24, 2008
Page 2

The City of Purdy must begin a program for the location and repair of sources of Inflow and Infiltration into the city's collection system. The EPA has a self assessment tool called Capacity, Management, Operation, and Maintenance (CMOM) which can be found on the internet at: <http://www.epa.gov/npdes/pubs/cmomselfreview.pdf>.

This document will assist the City of Purdy in evaluating the collection system to determine areas where the city needs to commit resources to eliminate problems.

The City of Purdy must develop and submit an Inflow and Infiltration Assessment and Reduction Plan and an Inspection and Maintenance Program. Included with these documents must be a commitment to implement this plan and program. **These documents must be submitted within 90 days of receipt of this letter.**

The City of Purdy must evaluate user rates for the wastewater treatment facility and collection system to ensure adequate monies are available for the proper operation, maintenance, and upgrading of the wastewater treatment facility and collection system. The Environmental Protection Agency is recommending that user rates be established at two percent of the median household income. Based on the year 2000 data from the U. S. Census Bureau (<http://factfinder.census.gov>) the median household income is \$ 24,318. At two percent the average user rate should be \$40/month.

It was also noted the continued operation of the wastewater treatment facility was not under the direct supervision of a certified operator. This also constitutes a violation of Missouri Clean Water Commission Regulations section 10 CSR 20-9.020(2)(B) and (D).

Within 45 days of receipt of this report please advise this office as to what steps have and will be taken to achieve compliance with all violations noted in the report.

If you have questions, please contact Gregory S. Perkins, P.E. by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 West Woodland, Springfield, Missouri 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE



Kevin Hess, Chief
Water Pollution Section

KH/gph

Enclosures

c: Ms. Catherine Hodges, Water Pollution Control Branch - Enforcement
Mr. Teddy McIntire, Operator

009.wpc.PurdyCityOf.mo0043222.wwtf.2007.06.24.fy07.insp.x.gsp

MISSOURI DEPARTMENT OF NATURAL RESOURCES
REPORT ON INSPECTION
WASTEWATER TREATMENT FACILITY SERVING
CITY OF PURDY
MO-0043222
BARRY COUNTY, MISSOURI

June 24, 2008

INTRODUCTION

On May 1, 2008, Gregory S. Perkins, P.E. of the Missouri Department of Natural Resources – Southwest Regional Office conducted a routine inspection of the wastewater treatment facility serving the City of Purdy. The purpose of the inspection was to assess compliance with the Missouri Clean Water Law, Missouri Clean Water Commission (MCWC) regulations and the facility's Missouri State Operating Permit (MSOP). The inspection also served to promote proper operation and to provide technical assistance where necessary.

WASTEWATER TREATMENT FACILITY DESCRIPTION

The facility operates under MSOP number MO0043222. The treatment facility for outfall 001 is composed of a single cell aerated lagoon with approximately 55 acres of land used for irrigation. The system has a Design Flow capacity of 120,000 gallons per day. Sludge is retained in the lagoon until final disposal. The facility is a no-discharge facility within the Little Flat Creek basin. The facility has a Design Population Equivalent of 1,500. Outfall 002 is a single cell overflow lagoon which serves a lift station that pumps to outfall 001. The facility has a design flow of 27,000 gallons per day. The facility has a design population equivalent of 450. The MSOP for this facility expires on December 23, 2008.

COMPLIANCE EVALUATION

1. As part of the inspection, a review of the facility's Discharge Monitoring Reports (DMR) was conducted. It was determined that the City of Purdy exceeded MSOP permit limitations for nitrate as nitrogen in monitoring well # 1 for the months September 2007, January 2008, and February 2008. This non-compliance constitutes a violation of Missouri Clean Water Law sections 644.051.1(3) and 644.076.1.
2. The report of sample analysis for samples obtained during the inspection indicates the facility was in non-compliance with MSOP limitations for nitrate as nitrogen in monitoring well #1. This non-compliance constitutes a violation of Missouri Clean Water Law sections 644.051.1(3) and 644.076.1 RSMo.
3. The City of Purdy failed to report the noncompliance with MSOP permit limitations as required in Part I of the Standard Conditions. Failure to notify the Department of Natural Resources constitutes a violation of Missouri Clean Water Law Section 644.076.1, RSMo.
4. The operation of the wastewater treatment facility is not under the direct supervision of an operator certified by the State of Missouri-Department of Natural Resources. The required level of operation for this facility is a D certification.

5. The City of Purdy has not reporting the operational testing as required in 10 CSR 20-9.010(5).
6. The City of Purdy is not submitting Discharge Monitoring Reports on a monthly basis in accordance with the revised MSOP.
7. The City of Purdy's collection system receives excessive flows due to inflow and infiltration (I&I) from storm events.
8. Observations made of the lagoon serving Outfall 002 indicated the facility was leaking.

OPERATION AND MAINTENANCE EVALUATION

9. The City of Purdy does no Quality Assurance/Quality Control for laboratory analysis done onsite.

COMMENTS

The results of sample analysis for samples obtained during the inspection and three months of Discharge Monitoring Reports (September 2006, January 2008, and February 2008) indicate non-compliance with Missouri State Operating Permit (MSOP) daily maximum limitations for nitrate in monitoring well # 1. This non-compliance constitutes a violation of Missouri Clean Water Law sections 644.051.1(3) and 644.076.1 RSMo. Because of continued non-compliance with MSOP it will be necessary for the City of Purdy to retain the services of a professional engineer registered in the State of Missouri to evaluate the design, operation, and maintenance of the lagoon system and make recommendations to bring this facility into compliance with MSOP limitations and conditions. **This engineering report and a commitment by the City of Purdy to implement the recommendations must be submitted within 120 days of receipt of this letter.**

In accordance with the Standard Conditions of the City's MSOP any noncompliance must be reported to the Department of Natural Resources – Southwest Regional Office within 24 hours by phone and within five days in writing. This would include any bypassing in the collection system if there is any.

The operation of this system is still not under the direct supervision of a certified operator have a minimum Class D license. **Within 30 days please provide this office with the name of a certified operator possessing a Class D license to be responsible for the operation and maintenance of this system.**

Operational testing is required by 10 CSR 20-9.010(5), copy enclosed. The minimum requirements include flow weather conditions, dissolved oxygen, and pH of the lagoon water. This information is required to be gathered twice per week and reported on the monthly Discharge Monitoring Report.

The City of Purdy is not submitting Discharge Monitoring Reports as required in the MSOP that was modified on November 26, 2007. It is understood that the City of Purdy met with staff from the Southwest Regional Office to determine the reporting requirements from the original permit. Please note the requirements have changed from quarterly sampling and reporting to monthly. It is imperative that the City of Purdy carefully review any draft or issued MSOP to ensure compliance with all limitations and conditions. **Revised discharge monitoring reports for December 2007, January 2008, February 2008, and April 2008 must be submitted within 45 days of receipt of this report.**

The City of Purdy has a bypass lagoon (Outfall 002) which can be used as a bypass of complete treatment for excess flow from storm events. The current Missouri State Operating Permit (MSOP) allows a discharge with limitations of 45 mg/l for both Biochemical Oxygen Demand and Total Suspended Solids. The Environmental Protection Agency (EPA) has recently commented that these discharges should not be allowed unless the permittee has exhausted all avenues to reduce or eliminate Inflow and Infiltration (I&I) into the collection system. It appears the EPA is heading in the direction of elimination of these outfalls from the City's MSOP. If a discharge does occur after the outfall is eliminated, it must be reported as a bypass in accordance with MSOP Standard Conditions Part I.

The City of Purdy must continue an aggressive program for the location and repair of sources of Inflow and Infiltration into the city's collection system. The EPA has a self assessment tool called Capacity, Management, Operation, and Maintenance (CMOM) which can be found on the internet at: <http://www.epa.gov/npdes/pubs/cmomselfreview.pdf>. This document will assist the City of Purdy in evaluating the collection system to determine areas where the city needs to commit resources to eliminate problems.

The City of Purdy must develop and submit an Inflow and Infiltration Assessment and Reduction Plan and an Inspection and Maintenance Program. Included with these documents must be a commitment to implement this plan and program. **These documents must be submitted within 90 days of receipt of this letter.**

The City of Purdy must evaluate user rates for the wastewater treatment facility and collection system to ensure adequate monies are available for the proper operation, maintenance, and upgrading of the wastewater treatment facility and collection system. The Environmental Protection Agency is recommending that user rates be established at two percent of the median household income. Based on the year 2000 data from the U. S. Census Bureau (<http://factfinder.census.gov>) the median household income is \$ 24,318. At two percent, the average user rate should be \$40/month.

It was observed during the inspection a potential leak through the berm of the lagoon serving Outfall 002. A request was made to the Department of Natural Resources – Division of Geology and Land Survey to evaluate the lagoon, a copy of their report is enclosed. Their observations confirmed the leakage from the lagoon. Please note the results for sample analysis indicated the facility was in non-compliance with MSOP limitations for Biochemical Oxygen Demand. It will be necessary for the City of Purdy to conduct an engineering evaluation of the lagoon system to determine if repair or replacement of the lagoon is needed. **This engineering report and a**

commitment by the City of Purdy to implement the recommendations must be submitted within 120 days of receipt of this letter.

Quality Assurance/Quality Control procedures are very important in being able to justify laboratory analytical results. This would include analyzing a zero standard and a Winkler titration for dissolved oxygen and known standard and daily calibration for pH. Documentation of the date, time, results of analysis, and signature or initials of the analyst must be **maintained in ink** and kept on file for inspection purposes.

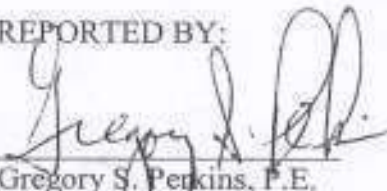
The dissolved oxygen and pH meters are temperature compensated. The temperature reading capabilities of both meters must be checked against a certified thermometer. Documentation of the date, time, results of analysis, and signature or initials of the analyst must be **maintained in ink** and kept on file for inspection purposes.

RECOMMENDATIONS


1. **Within 120 days of receipt of this report submit a engineering evaluation of the lagoon irrigation system with recommendations for compliance with all MSOP permit limitations, conditions Missouri Clean Water Law, and Regulations.**
2. Report all noncompliance and bypassing in accordance with the city's MSOP Standard Conditions.
3. **Within 30 days provide this office with the name of a certified operator possessing a minimum Class D license to be responsible for the operation and maintenance of this system.**
4. **Revised discharge monitoring reports for December 2007, January, 2008, February 2008, and April 2008 must be submitted within 45 days of receipt of this report. Submit monthly Discharge Monitoring Reports as required by the MSOP.**
5. Report the results of the required operational testing with the monthly Discharge Monitoring Report.

6. Continue with an aggressive program for the location and repair of sources of I&I into the collection system. Develop and submit within 90 days an Inflow and Infiltration Assessment and Reduction Plan and an Inspection and Maintenance Program.
7. Evaluate the user rates for the sewer system and adjust as necessary.
8. **Within 120 days submit an engineering evaluation of the lagoon leakage and compliance issues at Outfall 002 with a commitment by the City of Purdy to eliminate the problem.**
9. Perform Quality Assurance/Quality Control analysis including monitoring the temperature reading capability of the laboratory equipment.

REPORTED BY:


Gregory S. Perkins, P.E.
Environmental Engineer
Southwest Regional Office

APPROVED BY:


Gale L. Roberts, P.E., Chief
Water Pollution Engineering Unit
Southwest Regional Office



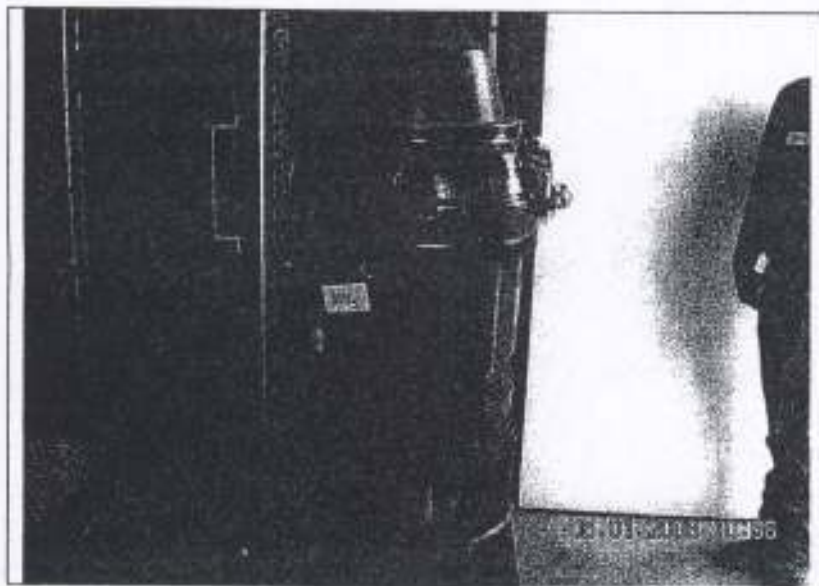
Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Outfall 001 Lagoon



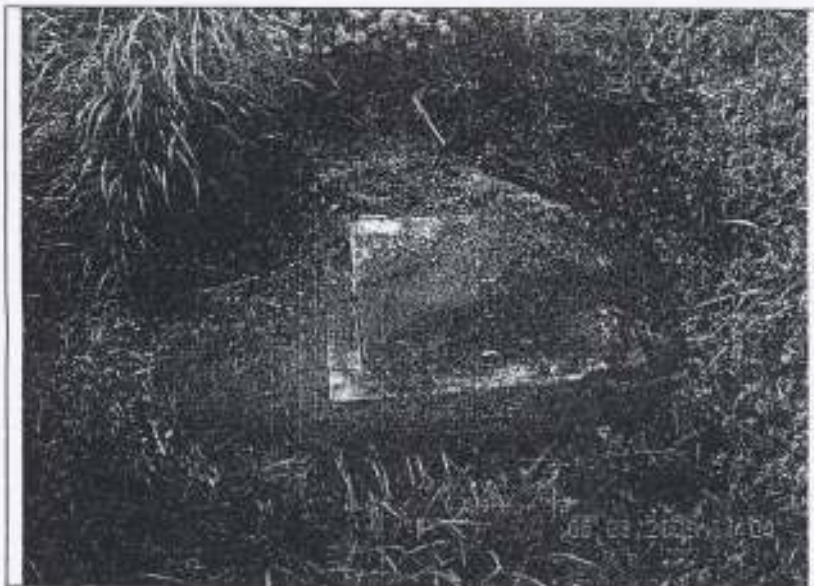
Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Lagoon depth marker and aerators



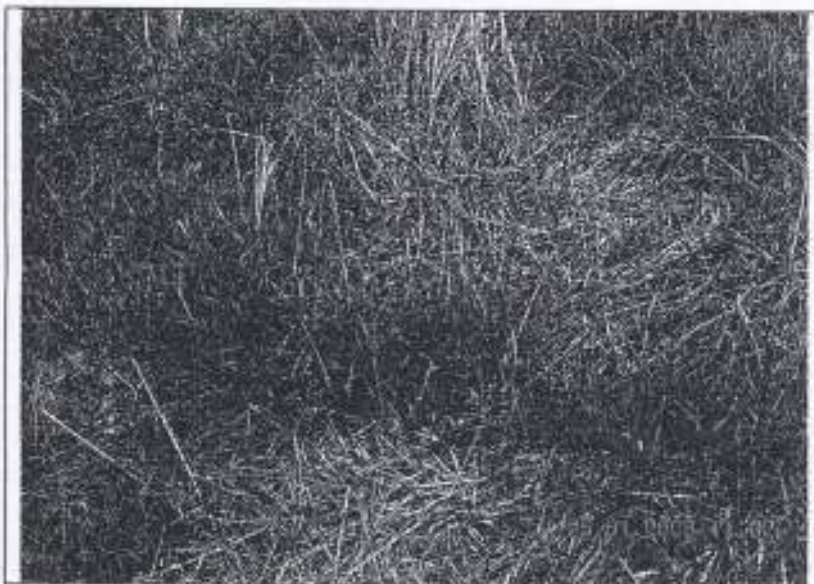
Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Land application site



Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Irrigation pump



Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Manhole with inflow of stormwater



Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Leakage area from lagoon at Outfall 002



Location: City of Purdy Wastewater Treatment Facility
Photographer: Gregory S. Perkins, P.E.
Comments: Outfall 002 Discharge pipe with discharge



Missouri Department of Natural Resources

Environmental Services Program

Order ID: 080502003

Report Date: 5/19/2008

Order Comment:

Program, Contact: WPCB
LDPR: LDPR: FEIN: 15202122232425262728293031

Sample: 080502003-01

Facility ID: M00043222

Site:

Purdy WWTF

County: Barry

Sample Reference ID:

Collector: Gregory S. Perkins

Affiliation:

SWRO

Sample Comment: WWTF outfall 001, monitoring well #1, grab.

Collect Date: 5/1/2008
Collect Time: 11:20 AM



Matrix: Nonportable Water

Parameter: Nitrate + Nitrite as N
Nitrite as N

Result: 12.3
0.01

Qualifier: 09
ND

Units: mg/L
mg/L

QC BatchID: 080505-01
080502-05

Method: EPA 353.2
EPA 353.2

Sample: 080502003-02

Facility ID: M00043222

Site:

Purdy WWTF

County: Barry

Sample Reference ID:

Collector: Gregory S. Perkins

Affiliation:

SWRO

Sample Comment: WWTF outfall 001, monitoring well #2, grab.

Collect Date: 5/1/2008
Collect Time: 11:25 AM



Matrix: Nonportable Water

Parameter: Nitrate + Nitrite as N
Nitrite as N

Result: 3.87
0.04

Qualifier: 09
05

Units: mg/L
mg/L

QC BatchID: 080505-01
080502-05

Method: EPA 353.2
EPA 353.2

Sample: 080502003-03

Facility ID: M00043222

Site:

Purdy WWTF

County: Barry

Sample Reference ID:

Collector: Gregory S. Perkins

Affiliation:

SWRO

Sample Comment: WWTF outfall 001, monitoring well #3, grab.

Collect Date: 5/1/2008
Collect Time: 11:40 AM



Matrix: Nonportable Water

Parameter: Nitrate + Nitrite as N
Nitrite as N

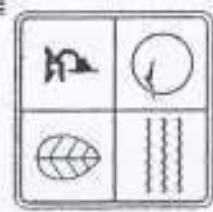
Result: 5.43
0.01

Qualifier: 09
ND

Units: mg/L
mg/L

QC BatchID: 080505-01
080502-05

Method: EPA 353.2
EPA 353.2



Sample: 080502003-04

Facility ID: MO0043222

Site:

Purdy WWTF

Customer #: 0806046

County:

Sample Reference ID:

Collect Date: 5/1/2008



Matrix: Nonpotable Water

Collector: Gregory S. Perkins

Affiliation:

SWFO

Collect Time: 12:30 PM

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
Biochemical Oxygen Demand	Biochemical Oxygen Demand	56.5		mg/L	Q80513-03bod	SM 5210-B
Non-Filterable Residue	Non-Filterable Residue	44.0		mg/L	Q80506-01ntf	SM 2540-D

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

Qualifier Descriptions

- | | |
|--|---|
| 01 Improper collection method | 11 Estimated value, matrix interference |
| 02 Improper preservation | 12 Insufficient quantity |
| 03 Exceeded holding time | 13 Estimated value, true result is > reported value |
| 04 Analyzed by Compact Laboratory | 14 Estimated value, non-homogeneous sample |
| 05 Estimated value, detected below PQL | 15 No Result - Failed Quality Controls Requirements |
| 06 Estimated value, QC data outside limits | 16 Not analyzed - related analyte not detected |
| 07 Estimated value, envyle outside calibration range | 17 Results in dry weight |
| 08 Analyte present in blank at > 1/2 reported value | 18 Sample pH is outside the acceptable range |
| 09 Sample was diluted during analysis | 19 Estimated value |
| 10 Laboratory error | 20 Not analyzed - Instrument failure |

*Corrected for
Cornie Biers*

Cornie Biers, Laboratory Manager
Environmental Services Program
Field Services Division



Missouri Department of Natural Resources

Stream Usage Survey

1. Stream Name (Please enter the full name)

2. County (Please enter the county or counties where the use occurs)

3. City or Town (Please enter city or town closest to the area of use)

4. Where do you use the stream? If use occurs in multiple locations, please list them all below. (Please be specific so the location can be identified on a map, e.g., 9th Street Bridge, Anytown City Park, Quarter Section-Township-Range, Latitude/Longitude, etc).

From 1135 bridge to "C" Hwy Bridge on Little Flat Creek and 1/4 mi downstream to confluence of Flat Creek Low water bridge on "C" Hwy. My school students use creek at Hwy 1095 and 100 and downstream to entrance of quarry. Friends use creek at downstream of Hwy BB & 2060. Historic Spout is located 2/10 mi. on 2060 and contributes to

5. Have you or your family personally used the stream at this site(s) for recreation since Nov. 28, 1975?

☒ Yes If Yes, go to Question #6 ☐ No If No, go to Question #11

6. Have you or your family personally used the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☒ Snorkling/Skin Diving ☐ Water Skiing

7. How many times per year have you or your family personally used the stream for these activities?

8. Have you or your family personally used the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☒ Boating ☐ Trapping

9. How many times per year have you or your family personally used the stream for these activities?

10. How many of these times did children wade or play in the stream?

11. Have you observed or heard of others using the stream at this site(s) for recreation since Nov. 28, 1975?

☒ Yes If Yes, go to Question #12 ☐ No If No, go to Question #17

12. Have you observed or heard of others using the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:

☒ Swimming ☒ Tubing ☐ Snorkling/Skin Diving ☐ Water Skiing

13. How many times per year have you observed or heard of others using the stream for these activities?

14. Have you observed or heard of others using the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:

☒ Fishing ☒ Wading ☒ Boating ☐ Trapping

15. How many times per year have you observed or heard of others using the stream for these activities?

16. How many of these times did you observe or hear of children wading or playing in the stream?

17. Do you have additional comments you would like to provide the department regarding this stream?

We own 90 acres on Little Flat Creek, it has been in our family for 3 generations. It is our Grandchildren's heritage. Little Flat Creek is used for human recreation, drinking well water, livestock watering, aquatic habitat & food source, wildlife habitat and drinking water. Little Flat Creek is located in a water shed of a 100 c+ dairy operation, Purdy WWTF, approx

18. In the event the department has questions, please provide the following contact information:

First Name: Last Name:

Address 1: Address 2:

City: State: Zip Code:

Phone Number: () - ext. E-mail:



John Hoke/WPCP/DEQ/MODNR

08/21/2008 01:00 PM

To dsherburne@moenviron.org

cc Anne Peery/WPCP/DEQ/MODNR@MODNR

bcc

Subject Fw: Stream Usage Survey Response

John Hoke
Environmental Specialist IV, TMDL Unit Chief
Water Quality Monitoring & Assessment Section
Missouri Department of Natural Resources
Phone: (573) 526-1446 Fax: (573) 522-9920

----- Forwarded by John Hoke/WPCP/DEQ/MODNR on 08/21/2008 01:00 PM -----



dnrweb@mail.mo.gov

08/21/2008 12:48 PM

To "John Hoke" <john.hoke@dnr.mo.gov>

cc

Subject Stream Usage Survey Response

Response from Quask form:

wpp-stream-usage

Powered by

Quask

StreamName:	Tracie Snodgrass
StreamCounty1:	Barry
FamilyRecreationYesNo:	Yes
FamilyRecreationActivity:	Swimming Tubing Snorkling/Skin Diving
FamilySecondaryActivity:	Fishing Wading Boating
StreamCity:	Purdy
OthersRecreationYesNo:	Yes

StreamUseComments:	From 1135 bridge to "C" Hwy Bridge on Little Flat Creek and 1/4 mi downstream to confluence of Flat Creek Low water bridge on "C" Hwy. My school students use creek at Hwy 1095 and 100 and downstream to entrance of quarry. Friends use creek at downstream of Hwy BB & 2060. Historic Spout is located 2/10 mi. on 2060 and contributes to aquifer of LFC2393.
OthersRecreationActivity:	Swimming Tubing
FamilyRecreationUsePerYear:	99
FamilySecondaryUsePerYear:	99
FamilyChildrenUsePerYear:	85
OthersRecreationUsePerYear:	75
OthersSecondaryActivity:	Fishing Wading Boating
OthersSecondaryUsePerYear:	99
OthersChildrenUsePerYear:	85
AdditionalComments:	We own 90 acres on Little Flat Creek, it has been in our family for 3 generations. It is our Grandchildren's heritage. Little Flat Creek is used for human recreation, drinking well water, livestock watering, aquatic habitat & food source, wildlife habitat and drinking water. Little Flat Creek is located in a watershed of a 100 c+ dairy operation, Purdy WWTF, approx 26 chicken & turkey house and a Quarry just within 5mi from Little Flat Creek. Any non-protection status would cause an economical devaluation of landowners along 2393. We personally did a cost-share with MDOC to create a riparian zone on our farm. Removal is NOT an option!
ContactFirstName:	Tracie & Mike
ContactLastName:	Snodgrass
ContactAddress1:	7561 Hwy V V
ContactCity:	

ContactState:	Verona
ContactZipCode:	Missouri
ContactPhoneArea Code:	65769
ContactPhonePrefix:	417
ContactPhoneNumber:	847
ContactEmail:	4639
	mtnmaid@mo-net.com

Double click the attachment to show the data in the form.
[Click here](#) to get the viewer if you have not already installed it.



View Form.qrd

Purdy

WWTF

Little Flat Creek

WBID 2393
(rec. 8-21-08)

Morett

1045/1100



Flows 1.5 mi
downstream
To



From: Tracie
Snodgrass

1107 Farm Rd

Water flows to 6/10 mi
down stream



6/10 mile below 1107



Spoat Spring
1862
Historic

B-B Hwy

2060



Stream Usage Survey

1. Stream Name (Please enter the full name) Little Hot Creek
2. County (Please enter the county or counties where the use occurs) Berry
3. City or Town (Please enter city or town closest to the area of use) Purdy
4. Where do you use the stream? If use occurs in multiple locations, please list them all below. (Please be as specific as possible. A location can be identified on a map, e.g., 9th Street Bridge, Anytown City Park, Quarter Section-Township-Range, Latitude/Longitude, etc).

2060 E 1095 Bridge and downstream to Quarry Rd

5. Have you or your family personally used the stream at this site(s) for recreation since Nov. 28, 1975?
- ☒ Yes If Yes, go to Question #6 ☐ No If No, go to Question #11
6. Have you or your family personally used the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:
- ☒ Swimming ☒ Tubing ☐ Snorkling/Skin Diving ☐ Water Skiing
7. How many times per year have you or your family personally used the stream for these activities? 102
8. Have you or your family personally used the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:
- ☒ Fishing ☒ Wading ☐ Boating ☒ Trapping
9. How many times per year have you or your family personally used the stream for these activities? 116
10. How many of these times did children wade or play in the stream? 102
11. Have you observed or heard of others using the stream at this site(s) for recreation since Nov. 28, 1975?
- ☒ Yes If Yes, go to Question #12 ☐ No If No, go to Question #17
12. Have you observed or heard of others using the stream at this site(s) for any of the following whole body contact recreation activities? Please select all that apply:
- ☒ Swimming ☐ Tubing ☐ Snorkling/Skin Diving ☐ Water Skiing
13. How many times per year have you observed or heard of others using the stream for these activities? 90
14. Have you observed or heard of others using the stream at this site(s) for any of the following secondary contact recreation activities? Please select all that apply:
- ☒ Fishing ☒ Wading ☐ Boating ☒ Trapping

- 5
15. How many times per year have you observed or heard of others using the stream for these activities? 90
OR any time a person enters the water
16. How many of these times did you observe or hear of children wading or playing in the stream? 100
17. Do you have additional comments you would like to provide the department regarding this stream?

This is our Summer fun!

18. In the event the department has questions, please provide the following contact information:

First Name: Jared Last Name: Wormington
Address 1: R.R. 3 Address 2: Box 210
City: Monett State: Missouri Zip Code: 65708
Phone Number: (417) 442-7153 ext. E-mail:

Thank you for taking time to complete our stream use survey. We appreciate your interest and involvement preserving the quality of Missouri's waters. If you have questions or additional comments, please contact Coordinator, at 1-800-361-4827 or (573) 526-1446, by e-mail at cleanwater@dnr.mo.gov, or by mail at P.O. Box 176, Jefferson City, Missouri 65102-0176.

Cancel

Submit



Missouri Department of Natural Resources
P.O. Box 176, Jefferson City, MO 65102

1-800-361-4827 / (573) 751-13
E-mail: cleanwater@dnr.mo.gov

**Little Flat Creek
WBID 2393**

Map showing the Little Flat Creek Watershed (WBID 2393) and surrounding areas. The map includes the following features:

- Legend:**
 - Little Flat Cr (WBID 2393)
 - Other Classified Waters
 - Other Roads
 - State Highways
- Scale:** 0, 0.2, 0.4, 0.8, 1.2, 1.6 Miles
- Disclaimer:** Although this map has been compiled by the Missouri Department of Natural Resources, no warranty, expressed or implied, is made by the department as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the department in the use of these data or related materials.
- Date:** August 2008
- Missouri Department of Natural Resources**

**Little Flat Creek
WBID 2393**

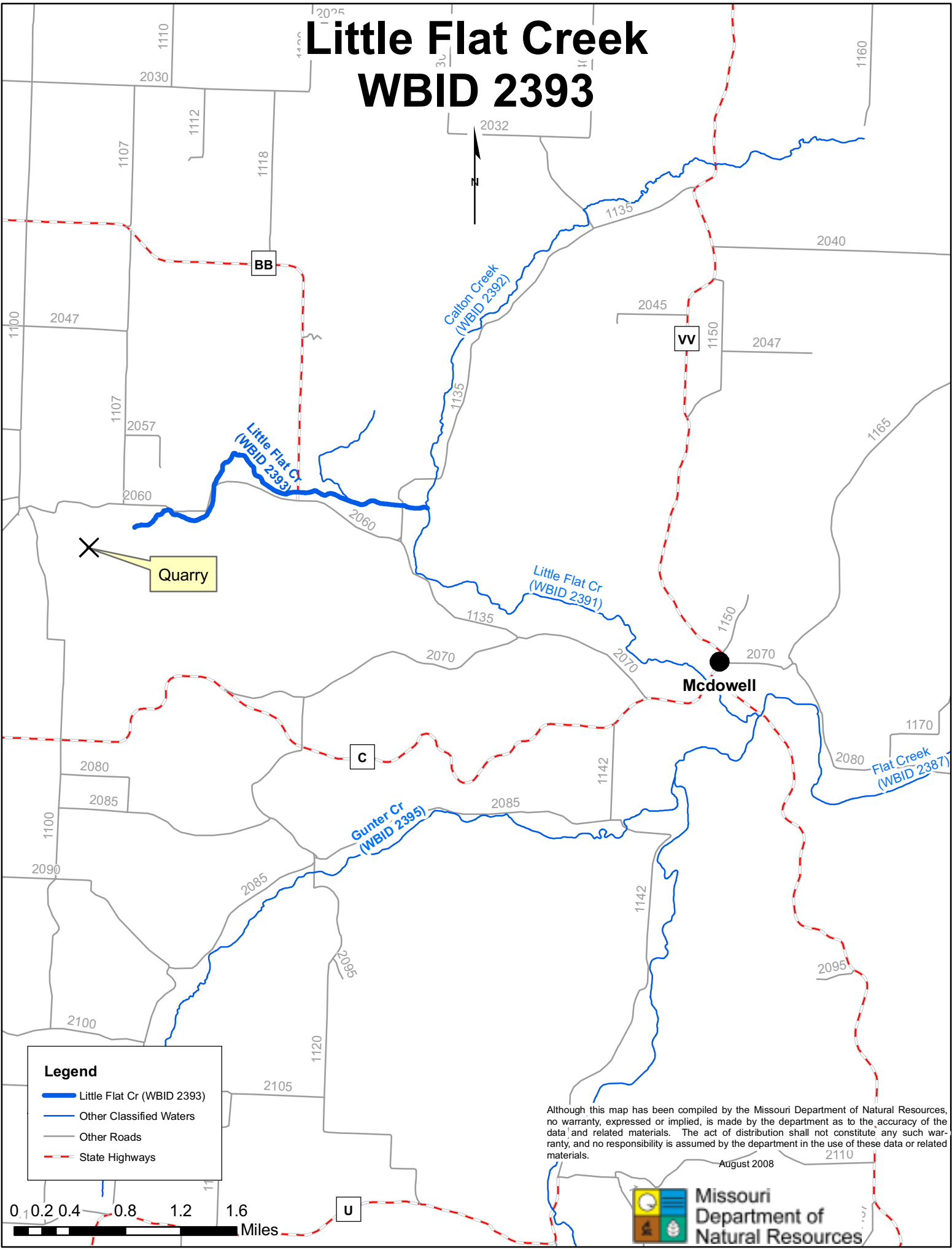
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- Date:** August 2008
- Missouri Department of Natural Resources**

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- Date:** August 2008
- Missouri Department of Natural Resources**



**Little Flat Creek
WBID 2393**

Map showing the Little Flat Creek Watershed (WBID 2393) and surrounding areas. The map includes the following features:

- Legend:**
 - Little Flat Cr (WBID 2393)
 - Other Classified Waters
 - Other Roads
 - State Highways
- Scale:** 0 to 1.6 Miles
- Location:** The map shows the Little Flat Creek Watershed (WBID 2393) flowing through the area, with other classified waters like Gunter Cr (WBID 2395) and Flat Creek (WBID 2387) also shown.
- Towns:** McDowell is marked as a town location.
- Roads:** Various roads are shown, including State Highways (dashed red lines) and other roads (solid grey lines).
- Other Features:** A quarry is marked with an 'X' and labeled. A north arrow is present.

Although this map has been compiled by the Missouri Department of Natural Resources, no warranty, expressed or implied, is made by the department as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the department in the use of these data or related materials.

August 2008

Missouri Department of Natural Resources